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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,973	01/16/2004	James Stoffer	2416.001US1	6511
21186 7590 04/03/2008 SCHWEGMAN, LUNDBERG & WOESSNER, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402				
EXAMINER				
FEELY, MICHAEL J				
ART UNIT		PAPER NUMBER		
1796				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/758,973

**Applicant(s)**

STOFFER ET AL.

**Examiner**

Michael J. Feely

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 4-6, 9-28, 38-48, 56, 63-98, 100-104, 112, 113, 115-120 and 123-150 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☒ Claim(s) 26, 39, 41, 83, 89, 95, 119, 133, 134, 145 and 146 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 20071221
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Continuation of Disposition of Claims: Claims **withdrawn** from consideration are 2,9-13,15,21-23,42-44,64,73,82,88,93,94,97,98,112,118 and 128-130.

Continuation of Disposition of Claims: Claims **rejected** are 1,2,4-6,9-25,27,28,38,40-48,56,63-82,84-88,90-94,96-98,100-104,112,113,115-118,120,123-132,135-144,147-150.

**DETAILED ACTION**

***Pending Claims***

Claims 1, 2, 4-6, 9-28, 38-48, 56, 63-98, 100-104, 112, 113, 115-120, and 123-150 are pending. Of these, claims 2, 9-13, 15, 21-23, 42-44, 64, 73, 82, 88, 93, 94, 97, 98, 112, 118, and 128-130 are withdrawn from consideration.

***Response to Amendment***

1. The rejection of claims 1, 4, 6, 14, 16-20, 24-28, 38-41, 46-48, 56, 63, 65-72, 74-81, 83-87, 89-92, 95, 96, 100-104, 113, 115-117, 120, 123-127, and 131-150 under 35 U.S.C. 112, first paragraph, has been overcome by amendment
2. The indicated allowability of claims 5 and 45 is withdrawn.

***The following rejections are applicable to the elected species:***

***Claim Rejections - 35 USC § 102***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 14, 16, 18-20, 24-26, 28, 63, 67, 70, 71, 96, 102, 115, 116, 120, 125, 134, 139, 141, and 145 are rejected under 35 U.S.C. 102(b) as being anticipated by Boyd et al. (US Pat. No. 5,871,839).

Boyd et al. disclose: the instantly claimed coating composition of claims 1, 14, 16, 18-20, 24-26, 28, 115, 116, 120, 125, and 134; the instantly claimed coating system of claims 63, 67,

70, 71, 141, and 145; the instantly claimed coating method of claims 96 and 102; and the instantly claimed preparation method of claim 139. The details regarding the *carbon pigments* are set forth in column 5, lines 54-67. The details regarding the *extenders* are set forth in column 6, line 36 through column 7, line 14. The details regarding the *binders* are set forth in column 6, lines 13-35. The details regarding the *substrate* are set forth in column 5, lines 39-53.

***Claim Rejections - 35 USC § 102/103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 68, 69, 100, 126, 127, and 147 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Boyd et al. (US Pat. No. 5,871,839).

Regarding claims 68, 69, 100, and 147, these claims feature product-by-process limitations. Claim 100 is a method claim featuring a pre-treated substrate, wherein the pretreatment (product-by-process) is open to (*non-chemical*) procedures such as washing. In light of this, it has been found that, “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Therefore, regardless of the non-chemical pre-treatment, method of curing, and method of coating, it appears that the method and coated substrate of Boyd et al. would have inherently or obviously satisfied the instantly claimed method and coated substrate.

Regarding claims 126 and 127, the prior art discusses the instantly claimed ASTM test; however, they do not explicitly set forth the instantly claimed results. Regardless, it appears that these limitations would have been inherently satisfied because all of the instantly claimed chemical/material limitations are satisfied by the prior art – *see MPEP 2112.01*.

#### ***Claim Rejections - 35 USC § 103***

7. Claims 17, 27, 113, 117, and 131-133 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyd et al. (US Pat. No. 5,871,839).

Regarding claims 17, 27, 113, 131, and 132, Boyd et al. does not explicitly set forth these instantly claimed ranges. However, one of ordinary skill in the art would have recognized that these quantities are result-effective variables used to tailor a variety of properties, including conductivity, mechanical strength, and corrosion resistance. In light of this, it has been found that the optimization of a result-effective variable is *prima facie* obvious in the absence of unexpected results – *see MPEP 2144.05*.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the amount of carbon and extender in Boyd et al. because the skilled artisan would have recognized that these quantities are result-effective variables used to tailor a variety of properties, including conductivity, mechanical strength, and corrosion resistance.

Regarding claims 117 and 133, Boyd et al. do not explicitly disclose these instantly claimed extender materials. However, they disclose, "In addition to the species of inorganic inhibitors listed above, one skilled in the art can readily identify without undue experimentation other suitable inorganic inhibitor species by any of the aforementioned tests," (*see column 7, lines 62-65*). Based on the similarities between the instantly claimed materials and the listed species, it appears that these instantly claimed materials would have fallen within this group of obvious inorganic inhibitors.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the instantly claimed extenders in Boyd et al. because Boyd et al. is open to additional inorganic materials that are chemically analogous to their listed inhibitors (extenders).

**The following rejections are applicable to the broader scope of the claims (non-elected species):**

***Claim Rejections - 35 USC § 102***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
9. Claims 1, 14, 16, 18, 28, 63, 65-67, 70-72, 74-80, 92, 96, 101-104, 120, 125, 139, 141, and 142 are rejected under 35 U.S.C. 102(b) as being anticipated by Krueger (US Pat. No. 4,522,879).

Krueger discloses: the instantly claimed coating composition of claims 1, 14, 16, 18, 28, 120, and 125; the instantly claimed coating system of claims 63, 65-67, 70-72, 74-80, 141, and 142; the instantly claimed coating method of claims 96 and 101-104; and the instantly claimed

preparation method of claims 92 and 139. The details regarding the *carbon pigments* are set forth in column 3, lines 53-57. The details regarding the *extenders* are set forth in column 3, line 58 through column 4, line 7. The details regarding the *binders* are set forth in column 2, line 30 through column 3, line 21. The details regarding the *substrate and multi-layered coated article* are set forth in column 6, lines 9-33. The details regarding the *ball milling* are set forth in column 5, lines 30-49.

***Claim Rejections - 35 USC § 102/103***

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claims 68, 69, 100, 126, 127, 147, and 148 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Krueger (US Pat. No. 4,522,879).

Regarding claims 68, 69, 100, 147, and 148, these claims feature product-by-process limitations. Claim 100 is a method claim featuring a pre-treated substrate, wherein the pretreatment (product-by-process) is open to (*non-chemical*) procedures such as washing. In light of this, it has been found that, “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).



Therefore, regardless of the non-chemical pre-treatment, method of curing, and method of coating, it appears that the method and coated substrate of Boyd et al. would have inherently or obviously satisfied the instantly claimed method and coated substrate.

Regarding claims 126 and 127, the prior art discusses the instantly claimed ASTM test; however, they do not explicitly set forth the instantly claimed results. Regardless, it appears that these limitations would have been inherently satisfied because all of the instantly claimed chemical/material limitations are satisfied by the prior art – *see MPEP 2112.01*.

#### ***Claim Rejections - 35 USC § 103***

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

13. Claims 1, 5, 6, 19, 20, 38, 40, 45-48, 56, 63, 65, 72, 76-79, 81, 84-87, 90, 91, 96, 100-102, 113, 120, 123-127, 131, 132, 135-144, and 147-150 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagiwara et al. (US 2002/0193485).

Hagiwara et al. *obviously* disclose: the instantly claimed coating composition of claims 1, 5, 6, 19, 20, 38, 40, 45, 47, 48, 56, 120, and 135-138; the instantly claimed coating system of claims 63, 65, 72, 76-79, 81, 84-87, 90, 91, 123, 141-144, 147, and 148; the instantly claimed coating method of claims 96 and 100-102; and the instantly claimed preparation method of claims 139 and 140. The details regarding the *carbon pigments* are set forth in paragraph 0024. The details regarding the *extenders* are set forth in paragraph 0024. The details regarding the *rare earth materials* are set forth in paragraph 0024. The details regarding the *binders* are set forth in paragraph 0025. The details regarding the *substrate and multi-layered coated article* are

set forth in paragraphs 0065-0070. The contemplated *mixtures of two or more of these pigments* obviously satisfy the claimed invention.

Regarding claims 149 and 150, these claims feature product-by-process limitations, wherein both layers are electro-coated. In light of this, it has been found that, “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Therefore, regardless of the method of coating, it appears that the coated substrate of Hagiwara et al. would have inherently or obviously satisfied the instantly claimed coated substrate.

Regarding claims 126 and 127, the prior art discusses the instantly claimed ASTM test; however, they do not explicitly set forth the instantly claimed results. Regardless, it appears that these limitations would have been inherently satisfied because all of the instantly claimed chemical/material limitations are satisfied by the prior art – *see MPEP 2112.01*.

Regarding claims 46, 113, 124, 125, 131, and 132, Hagiwara et al. do not explicitly set forth these instantly claimed ranges. However, one of ordinary skill in the art would have recognized that these quantities are result-effective variables used to tailor a variety of properties, including conductivity, mechanical strength, and corrosion resistance. In light of this, it has been found that the optimization of a result-effective variable is *prima facie* obvious in the absence of unexpected results – *see MPEP 2144.05*.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the amount of carbon, extender, and rare earth compound in Hagiwara et al. because the skilled artisan would have recognized that these quantities are result-effective variables used to tailor a variety of properties, including conductivity, mechanical strength, and corrosion resistance.

14. Claims 1, 4, 16-18, 24, 25, 63, 65, 67-72, 76-80, 96, 100-102, 113, 115-117, 120, 125-127, 131, 132, 139, 141, and 145-147 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furuya et al. (US 2002/0082338).

Furuya et al. *obviously* disclose: the instantly claimed coating composition of claims 1, 4, 16, 18, 24, 25, 115, 116, 120, 125, and 141; the instantly claimed coating system of claims 63, 65, 67, 70-72, 76-80, 145, and 146; the instantly claimed coating method of claims 96, and 100-102; and the instantly claimed preparation method of claims 139. The details regarding the *carbon pigments* are set forth in paragraph 0118. The details regarding the *extenders* are set forth in paragraph 0118. The details regarding the *amino acids* are set forth in paragraph 0103. The details regarding the *binders* are set forth in paragraphs 0047-0101. The details regarding the *substrate and multi-layered coated article* are set forth in paragraph 0017. The contemplated *mixtures of two or more of these pigments* obviously satisfy the claimed invention.

Regarding claims 68, 69, and 147, these claims feature product-by-process limitations. In light of this, it has been found that, “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the

product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Therefore, regardless of the method of coating or curing, it appears that the coated substrate of Furuya et al. would have inherently or obviously satisfied the instantly claimed coated substrate.

Regarding claims 126 and 127, the prior art discusses the instantly claimed ASTM test; however, they do not explicitly set forth the instantly claimed results. Regardless, it appears that these limitations would have been inherently satisfied because all of the instantly claimed chemical/material limitations are satisfied by the prior art – *see MPEP 2112.01*.

Regarding claims 17, 113, 117, 131, and 132, Furuya et al. do not explicitly set forth these instantly claimed ranges. However, one of ordinary skill in the art would have recognized that these quantities are result-effective variables used to tailor a variety of properties, including conductivity, mechanical strength, and corrosion resistance. In light of this, it has been found that the optimization of a result-effective variable is *prima facie* obvious in the absence of unexpected results – *see MPEP 2144.05*.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the amount of carbon and extender in Furuya et al. because the skilled artisan would have recognized that these quantities are result-effective variables used to tailor a variety of properties, including conductivity, mechanical strength, and corrosion resistance.

15. Claims 17, 27, 113, 131, and 132 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krueger (US Pat. No. 4,522,879).

Regarding claims 17, 27, 113, 131, and 132, Krueger does not explicitly set forth these instantly claimed ranges. However, one of ordinary skill in the art would have recognized that these quantities are result-effective variables used to tailor a variety of properties, including conductivity, mechanical strength, and corrosion resistance. In light of this, it has been found that the optimization of a result-effective variable is *prima facie* obvious in the absence of unexpected results – *see MPEP 2144.05*.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the amount of carbon and extender in Krueger et al. because the skilled artisan would have recognized that these quantities are result-effective variables used to tailor a variety of properties, including conductivity, mechanical strength, and corrosion resistance.

#### ***Allowable Subject Matter***

16. Claims 26, 39, 41, 83, 89, 95, 119, 133, 134, 145, and 146 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

17. Applicant's arguments filed December 21, 2007 have been fully considered but they are not persuasive. Applicant argues that the carbon materials of Boyd et al. do not constitute *pigments* because they are conductive *fibers*. The Examiner respectfully disagrees, because regardless of size or shape, these carbon materials still have a pigmenting (blackening) effect on most host materials in which they are dispersed.

*Communication*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Feely whose telephone number is (571)272-1086. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J Feely/  
Primary Examiner, Art Unit 1796

March 31, 2008